In the Claims

Please amend the claims as follows:

1 to 19 (Cancelled)

20. (Currently Amended) A microsystem adapted for dielectrophoretic manipulation of particles in a suspension liquid, said microsystem comprising:

a channel with channel walls, said channel having a longitudinal extension, and

an electrode arrangement with at least one microelectrode on at least one of said channel walls for generating a field barrier which crosses the channel at least partly;, wherein

the at least one microelectrode has a band-shape or comprises a multitude of straight electrode sections connected with each other, and

in relation to the longitudinal extension of said channel, said band-shape has a predetermined curvature or said straight electrode sections are arranged with predetermined, different angles, so that the field barrier has a predetermined parabolic or hyperbolic curvature relative to the longitudinal extension of the channel.

21. (Previously Presented) The microsystem according to claim 20, in which the electrode arrangement comprises at least two microelectrodes of the same shape and alignment affixed on opposite channel walls, each of said at least two microelectrodes being in the shape of a curved band.

22. (Previously Presented) The microsystem according to claim 21, in which the at least two microelectrodes depending on a flow profile of said suspension liquid flowing through said channel are curved such that in every section of the field barrier of which is situated upstream in relation to the microelectrode.

23. (Previously Presented) The microsystem according to claim 21, in which the at least two microelectrodes comprise four microelectrodes being arranged as focussing electrodes to form a particle funnel.

24. (Previously Presented) The microsystem according to claim 21, in which the at least two microelectrodes depending on a flow profile of said suspension liquid flowing through said channel are curved such that a resulting force acting on a particle from one end of each of the microelectrodes towards the other end describes a change in direction, which lead from a direction to a region situated upstream in relation to the at least two microelectrodes, to a direction to a region situated downstream in relation to the at least two microelectrodes.

25. (Currently Amended) The microsystem according to claim 24, in which the at least two microelectrodes comprise two microelectrodes are ~~being~~ provided as sorting electrodes whose field barrier acts in combination with the flow profile of the suspension liquid in the channel such that suspended particles with different passive electrical characteristics can pass the sorting electrodes on separate tracks depending on the characteristics of said suspended particles.

26. (Previously Presented) The microsystem according to claim 21, in which on opposite channel walls at least two microelectrodes of the same shape and alignment are provided, each comprising an angle section closed in downstream direction.

27. (Previously Presented) The microsystem according to claim 26, in which at least two microelectrodes act in combination as collector electrodes

28. (Previously Presented) The microsystem according to claim 27, in which one group of collector electrodes is arranged in cross direction of the channel.

29. (Previously Presented) The microsystem according to claim 20, in which said channel walls comprise bottom and cover walls and the at least one microelectrode comprises microelectrodes being arranged in pairs on the bottom and cover walls of the channel.

30. (Previously Presented) The microsystem according to claim 20, in which at least one microelectrodes comprises two microelectrodes being provided on two opposite channel walls, comprising different geometric shapes.

31. (Currently Amended) The microsystem according to claim 30, in which the channel has a rectangular cross-sectional shape, wherein said channel walls comprise bottom and cover walls and lateral walls being narrower ~~then~~ than the bottom and cover walls, and the at least one microelectrode is attached to the lateral walls and comprises an area-shaped microelectrode on one of the lateral walls and a band-shaped microelectrode on the opposite of the lateral wall.

32. (Previously Presented) The microsystem according to claim 31, in which the area-shaped microelectrode is arranged so as to be floating.

33. (Previously Presented) The microsystem according to claim 31, in which the channel is divided into two sub-channels by a separation wall, with the separation wall comprising an aperture in the region of the area-shaped and the band-shaped microelectrodes arranged on the lateral walls opposite to each other .

34. (Currently Amended) The microsystem according to claim 20, in which the at least one microelectrode comprises three microelectrodes two of which being provided ~~microelectrodes~~ as focusing electrodes in the form of band-shaped electrodes converging on a middle line, on bottom and cover walls of the channel, and the third of which being arranged as a field-forming auxiliary electrode spaced apart from the bottom and cover walls in the middle of the channel.

35. (Previously Presented) The microsystem according to claim 34, in which the channel is divided into two sub-channels by a separation wall with an aperture upstream in relation to the auxiliary electrode.

36. (Cancelled)

37. (Cancelled)

38. (Currently Amended) Method of dielectrophorectic manipulation of particles in a suspension liquid, using a microsystem according to claim 20, said method comprising the steps of:

– flowing said suspension liquid through the channel of said microsystem,

– forming a field barrier with a predetermined curvature relative to the direction of flow of said suspension liquid, and

– deflecting, sorting, collecting and/or forming microscopic particles under the influence of said field barrier.